




Dell Studio™ 1555 Service Manual

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Notes, Cautions, and Warnings

-  **NOTE:** A NOTE indicates important information that helps you make better use of your computer.
-  **CAUTION:** A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.
-  **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Model PP39L

December 2008 Rev. A00

Base Cover

Dell Studio™ 1555 Service Manual

- [Removing the Base Cover](#)
- [Replacing the Base Cover](#)

- ⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- ⚠ WARNING:** Before performing these procedures, turn off the computer, disconnect the AC adapter from the electrical outlet and the computer, disconnect the modem from the wall connector and the computer, and remove any other external cables from the computer.
- ⚠ CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- ⚠ CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see "Before Working Inside Your Computer" on page 10) before working inside the computer.
-

Removing the Base Cover

1. Ensure that the computer is turned off.
2. Remove the battery (see [Before Working Inside Your Computer](#)).
3. Loosen the three captive screws on the base cover and lift the cover off the computer at an angle as shown in the figure.



1	base cover	2	tabs
3	captive screws (3)		

Replacing the Base Cover

1. Align the tabs on the base cover to the bottom of the computer.
 2. Tighten the three captive screws on the base cover.
 3. Slide the battery into the battery bay until it clicks into place.
-

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Before You Begin

Dell Studio™ 1555 Service Manual

- [Recommended Tools](#)
- [Turning Off Your Computer](#)
- [Before Working Inside Your Computer](#)

This document provides procedures for removing and installing the components in your computer. Unless otherwise noted, each procedure assumes that:

- 1 You have performed the steps in [Before Working Inside Your Computer](#).
- 1 You have read the safety information that shipped with your computer.
- 1 When replacing a component, you have already removed the original component, if installed.



Recommended Tools

The procedures in this document may require the following tools:

- 1 Small flat-blade screwdriver
- 1 Phillips screwdriver
- 1 Small plastic scribe
- 1 BIOS upgrade CD (see the Dell Support website at support.dell.com)

Turning Off Your Computer

 **CAUTION:** To avoid losing data, save and close all open files and exit all open programs before you turn off your computer.


1. Save and close all open files and exit all open programs.
2. In Microsoft® Windows Vista®, click **Start** , click the arrow , and then click **Shut Down**.


The computer turns off after the operating system shutdown process finishes.


3. Ensure that the computer and any attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for at least 8 to 10 seconds until the computer turns off.


Before Working Inside Your Computer


Use the following safety guidelines to help protect your computer from potential damage and to help ensure your own personal safety.

 **WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.

 **CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell is not covered by your warranty.

 **CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as a connector on the back of the computer.

 **CAUTION:** Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges. Hold a component such as a processor by its edges, not by its pins.

 **CAUTION:** When disconnecting a cable, pull on the cable's connector or on its pull-tab, not on the cable itself. For cable connectors with locking tabs, press inward on the locking tabs to release the connector. When connecting a cable, ensure that the connectors are correctly oriented and aligned to avoid damage to the connector and/or the connector's pins.

1. Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.
2. Turn off your computer (see [Turning Off Your Computer](#)).

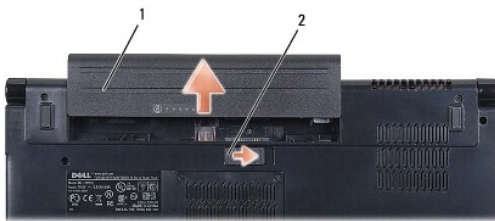
⚠ **CAUTION:** To disconnect a network cable, first unplug the cable from your computer, and then unplug it from the network device.

3. Disconnect any telephone or network cables from the computer.
4. Press and eject any installed cards from the ExpressCard slot and the 8-in-1 Memory Card Reader.

⚠ **CAUTION:** To help prevent damage to the system board, you must remove the battery from the battery bay before you service the computer.

⚠ **CAUTION:** To avoid damage to the computer, use only the battery designed for this particular Dell computer. Do not use batteries designed for other Dell computers.

5. Turn the computer over.
6. Slide the battery release latch until it clicks into place.
7. Slide the battery out of the battery bay.



1	battery	2	battery release latch
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8. Turn the computer top side up, open the display, and press the power button to ground the system board.

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Flashing the BIOS

Dell Studio™ 1555 Service Manual


- [Flashing the BIOS From a CD](#)
- [Flashing the BIOS From the Hard Drive](#)

If a BIOS upgrade CD is provided with the new processor or new system board, flash the BIOS from the CD. If you do not have a BIOS upgrade CD, flash the BIOS from the hard drive.


Flashing the BIOS From a CD

 **CAUTION:** Plug the AC adapter into a known, good power source to prevent loss of power. Failure to do so may cause system damage.

1. Ensure that the AC adapter is plugged in and that the main battery is installed properly.

 **NOTE:** If you use the BIOS-update program CD to flash the BIOS, press <F12> before inserting the CD so that you can set up the computer to boot from a CD for one time only. Otherwise, you must enter the system setup program to change the default boot order.


2. Insert the BIOS-update program CD and turn on the computer.

 **CAUTION:** Do not interrupt this process once it begins. Doing so may cause damage to the computer.

Follow the instructions that appear on the screen. The computer continues to boot and updates the new BIOS. When the flash update is complete, the computer will automatically reboot.

3. Press <F2> during POST to enter the system setup program.
 4. Press <Alt> and <F> to reset the computer defaults.
 5. Press <Esc>, select **Save/Exit**, and press <Enter> to save configuration changes.
 6. Remove the flash BIOS-update program CD from the drive and restart the computer.
-

Flashing the BIOS From the Hard Drive

 **CAUTION:** Plug the AC adapter into a known, good power source to prevent loss of power. Failure to do so may cause damage to the computer.

1. Ensure that the AC adapter is plugged in, the main battery is properly installed, and a network cable is attached.
2. Turn on the computer.
3. Locate the latest BIOS update file for your computer at support.dell.com.
4. Click **Download Now** to download the file.
5. If the **Export Compliance Disclaimer** window appears, click **Yes, I Accept this Agreement**.

The **File Download** window appears.

6. Click **Save this program to disk**, and then click **OK**.


The **Save In** window appears.

7. Click the down arrow to view the **Save In** menu, select **Desktop**, and then click **Save**.

The file downloads to your desktop.

8. Click **Close** if the **Download Complete** window appears.

The file icon appears on your desktop and is titled the same as the downloaded BIOS update file.

 **CAUTION:** Do not interrupt this process once it begins. Doing so may cause system damage.

9. Double-click the file icon on the desktop and follow the instructions on the screen.

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Camera (Optional)

Dell Studio™ 1555 Service Manual

- [Removing the Camera Module](#)
- [Replacing the Camera Module](#)

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- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Camera Module

1. Follow the instructions in [Before You Begin](#).
2. Remove the display panel (see [Removing the Display Panel](#)).
3. Remove the two screws that secure the camera to the display cover.
4. Lift the camera board from the display cover.



1	screws (2)
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Replacing the Camera Module

1. Follow the instructions in [Before You Begin](#).
 2. Replace and tighten the two screws securing the camera to the display cover.
 3. Replace the display panel (see [Replacing the Display Panel](#)).
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Center Control Cover

Dell Studio™ 1555 Service Manual

- [Removing the Center Control Cover](#)
- [Replacing the Center Control Cover](#)

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- CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist= grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Center Control Cover

1. Follow the procedures in [Before You Begin](#).
2. Remove the screw securing the center control cover from the battery bay.



3. Turn the computer over and open the display as far as possible.
4. Pry out the center control cover with a plastic scribe starting from the battery bay location at the back of the computer.
5. Ease the center control cover up.



1	center control cover
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Replacing the Center Control Cover

1. Follow the procedures in [Before You Begin](#).
2. Align the hooks beneath the center control cover to the slots on the palm rest and snap the cover in place.
3. Close the display and turn over the computer.
4. In the battery bay, replace the screw that secures the center control cover.
5. Slide the battery into the battery bay until it clicks into place.

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Coin-Cell Battery

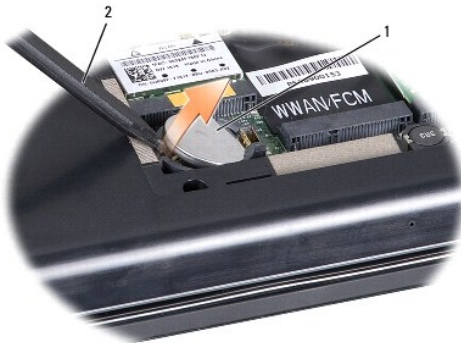
Dell Studio™ 1555 Service Manual

- [Removing the Coin-Cell Battery](#)
- [Replacing the Coin-Cell Battery](#)

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- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Coin-Cell Battery

1. Follow the instructions in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).
3. Use a plastic scribe to pry up the coin-cell battery from the slot.



1	coin-cell battery	2	plastic scribe
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Replacing the Coin-Cell Battery

1. Follow the instructions in [Before You Begin](#).
 2. Hold the coin-cell battery with the positive side up.
 3. Slide the coin-cell battery into the slot and gently press until it snaps to the slot.
 4. Replace the base cover (see [Replacing the Base Cover](#)).
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Processor Module

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- [Removing the Processor Module](#)
- [Replacing the Processor Module](#)

- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.
- CAUTION:** To prevent intermittent contact between the ZIF-socket cam screw and the processor when removing or replacing the processor, press to apply slight pressure to the center of the processor while turning the cam screw.
- CAUTION:** To avoid damage to the processor, hold the screwdriver so that it is perpendicular to the processor when turning the cam screw.
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Processor Module


1. Follow the instructions in [Before You Begin](#).
2. Remove the processor heat sink (see [Removing the Processor Heat Sink](#)).
3. To loosen the ZIF socket, use a small, flat-blade screwdriver and rotate the ZIF-socket cam screw counterclockwise until it comes to the cam stop.




1	ZIF-socket cam screw	2	ZIF socket
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- CAUTION:** To ensure maximum cooling for the processor, do not touch the heat transfer areas on the processor thermal-cooling assembly. The oils in your skin can reduce the heat transfer capability of the thermal pads.
- CAUTION:** When removing the processor module, pull the module straight up. Be careful not to bend the pins on the processor module.
4. Lift the processor module from the ZIF socket.
-

Replacing the Processor Module

 **NOTE:** If a new processor is installed, you will receive a new thermal-cooling assembly, which will include an affixed thermal pad, or you will receive a new thermal pad along with documentation to illustrate proper installation.


1. Follow the instructions in [Before You Begin](#).
2. Align the pin-1 corner of the processor module with the pin-1 corner of the ZIF socket, then insert the processor module.

 **NOTE:** The pin-1 corner of the processor module has a triangle that aligns with the triangle on the pin-1 corner of the ZIF socket.

When the processor module is properly seated, all four corners are aligned at the same height. If one or more corners of the module are higher than the others, the module is not seated properly.



1	ZIF-socket cam screw	2	ZIF socket
3	pin-1 corner		

 **CAUTION:** To avoid damage to the processor, hold the screwdriver so that it is perpendicular to the processor when turning the cam screw.

3. Tighten the ZIF socket by turning the cam screw clockwise to secure the processor module to the system board.
4. Replace the processor heat sink (see [Replacing the Processor Heat Sink](#)).

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Processor Heat Sink

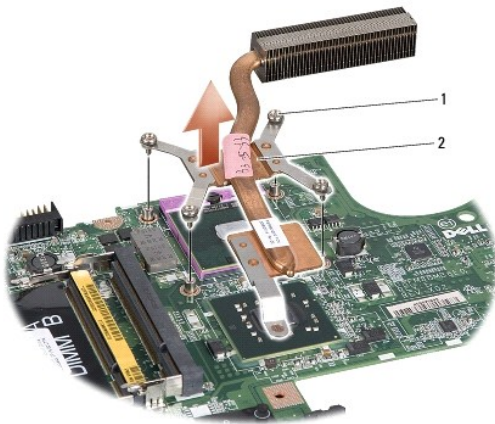
Dell Studio™ 1555 Service Manual

- [Removing the Processor Heat Sink](#)
- [Replacing the Processor Heat Sink](#)

- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- WARNING:** If you remove the processor heat sink from the computer when the heat sink is hot, do not touch the metal housing of the processor heat sink.
- CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
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Removing the Processor Heat Sink


1. Follow the instructions in [Before You Begin](#).
2. Remove the optical drive (see [Removing the Optical Drive](#)).
3. Disconnect the ExpressCard cables from the respective connectors on the system board (see [Removing the ExpressCard Board](#)).
4. Disconnect the AC adapter connector cable, USB cable, fan cable, and the subwoofer cable from the system board (see [Removing the System Board Assembly](#)).
5. Remove the six screws that secure the system board to the computer base.
6. Turn the system board over.
7. In sequential order (indicated on the processor heat sink), loosen the four captive screws on the thermal-cooling assembly processor cover.



1	captive screws (4)	2	processor heat sink
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8. Lift the processor heat sink off the computer.
-

Replacing the Processor Heat Sink

 **NOTE:** The original thermal pad can be reused if the original processor and heat sink are reinstalled together. If either the processor or heat sink is replaced, use the thermal pad provided in the kit to ensure that thermal conductivity is achieved.

 **NOTE:** This procedure assumes that you have already removed the processor heat sink and are ready to replace it.

1. Align the four captive screws on the processor thermal-cooling assembly processor cover with the screw holes on the system board and tighten the screws in sequential order.
2. Replace the system board to the computer base.
3. Replace the six screws that secure the system board to the computer base.
4. Connect the AC adapter connector cable, USB cable, fan cable, and the subwoofer cable to the system board (see [Replacing the System Board Assembly](#)).
5. Connect the ExpressCard cables back to their respective connectors on the system board (see [Replacing the ExpressCard Board](#)).
6. Replace the optical drive (see [Replacing the Optical Drive](#)).
7. Slide the battery into the bay until it clicks into place.

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Display

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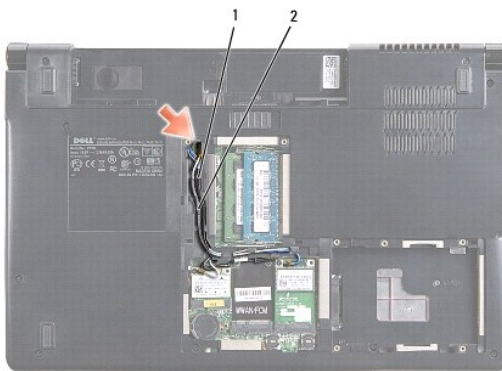
- [Display Assembly](#)
- [Display Bezel](#)
- [Display Panel](#)
- [Display Hinges](#)

Display Assembly

- ⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
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- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.

Removing the Display Assembly

1. Follow the instructions in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).
3. Disconnect the antenna cables from the Mini-Card(s).
4. Lift the antenna cables from the securing tabs and release them from the routing channel.



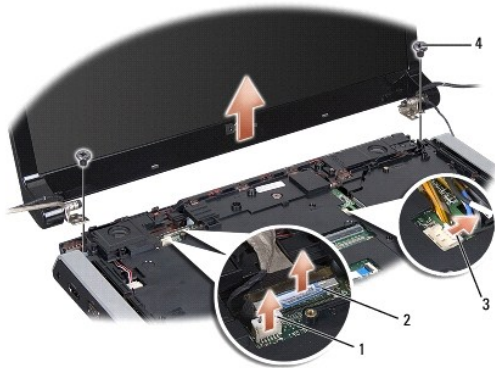
1	securing tabs	2	antenna cables
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5. Remove the two screws securing the display assembly from the bottom of the computer.



6. Remove the center control cover (see [Removing the Center Control Cover](#)).


7. Remove the keyboard (see [Removing the Keyboard](#)).
8. Disconnect the camera cable, display cable, and power button cable from their connectors on the system board and release it from the routing guides.
9. Pull the antenna cables through the routing hole and release them from the routing channel.
10. Remove the two screws that secure the display assembly to the computer base.



1	camera cable connector	2	display cable connector
3	power button cable connector	4	hinge screws (2)

11. Lift the display assembly out of the computer.

Replacing the Display Assembly

1. Follow the instructions in [Before You Begin](#).
 2. Align the display hinges with the holes in the base of the computer and then lower the display into place.
 3. Replace the two screws that secure the display assembly to the computer base.
 4. Slide the antenna cables through the routing hole to the base of the computer.
 5. Secure the camera cable, display cable, and power button cable to their routing guides.
 6. Connect the camera cable, display cable, and power button cable to their connectors on the system board.
-  **NOTE:** Ensure that the display and camera cables are properly routed and secured beneath the routing guides.
7. Replace the keyboard (see [Replacing the Keyboard](#)).
 8. Replace the center control cover (see [Replacing the Center Control Cover](#)).
 9. Close the display and turn the computer over.
 10. Replace and tighten the two that secure the display assembly to the bottom of the computer.
 11. Replace the Mini-Card and connect the antenna cables to it (see [Replacing the Mini-Card](#)).
 12. Replace the base cover (see [Replacing the Base Cover](#)).

Display Bezel

Removing the Display Bezel

⚠ WARNING: The following instructions are not applicable to Edge-to-Edge display panels, which should not be disassembled.

1. Follow the instructions in [Before You Begin](#).
2. Remove the display assembly (see [Removing the Display Assembly](#)).

⚠ CAUTION: Removal of the bezel from the display bottom cover requires extreme care to avoid damage to the bezel and the display panel.

3. Gently push the display bezel outwards on each of the four sides to release the bezel from the display panel.



1 display bezel

🔧 NOTE: In some computers, the display bezel has a double-sided tape on both ends. To avoid damage to the display bezel, remove the display bezel carefully to free it from the double-sided tape.

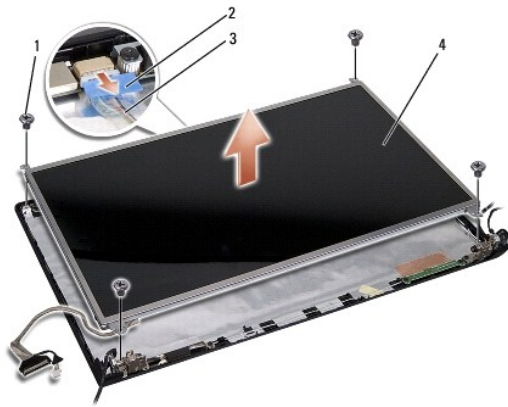
Replacing the Display Bezel

1. Follow the instructions in [Before You Begin](#).
2. Starting at any corner, use your fingers to gently snap the bezel into place to secure it to the display panel.
3. Replace the display assembly (see [Replacing the Display Assembly](#)).

Display Panel

Removing the Display Panel

1. Follow the instructions in [Before You Begin](#).
2. Remove the display assembly (see [Removing the Display Assembly](#)).
3. Remove the display bezel (see [Removing the Display Bezel](#)).
4. Remove the four screws securing the display panel to the display cover.
5. Using the camera cable pull-tab, disconnect the camera cable from the connector on the camera.



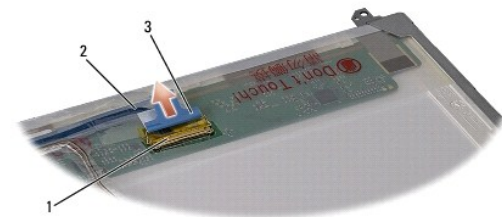
1	screws (4)	2	camera cable pull-tab
3	camera cable	4	display panel

6. Lift the display panel out of the display cover.
7. Remove the four screws (two on each side of the display panel) securing the brackets to the display panel and remove the brackets.
8. Turn over the display panel.



1	display panel bracket (1 left, 1 right)	2	screws (4 total; 2 on each side)
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9. Using the display cable pull-tab disconnect the display cable from the display board.



1	display cable connector	2	display cable
3	display cable pull-tab		

Replacing the Display Panel

1. Follow the instructions in [Before You Begin](#).
2. Connect the display cable to the board at the back of the display panel.

3. Replace the four screws (two on each side of the display panel) to secure the display brackets to the display panel.
 4. Connect the camera cable to the connector on the camera.
 5. Align the screw holes on the display bracket with the corresponding screw holes and guide pins on the display cover and gently lower the display panel into place.
 6. Replace the four screws that secure the display panel to the cover.
 7. Replace the display bezel (see [Replacing the Display Bezel](#)).
 8. Replace the display assembly (see [Replacing the Display Assembly](#)).
-

Display Hinges

Removing the Display Hinges

1. Follow the instructions in [Before You Begin](#).
2. Remove the display assembly (see [Removing the Display Assembly](#)).
3. Remove the display panel without removing the display bracket (see [Removing the Display Panel](#)).
4. Remove the two screws (one on each side) securing the display hinges to the display cover.
5. Remove the display hinges.



1	screws (2)	2	hinge (2)
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Replacing the Display Hinges

1. Follow the instructions in [Before You Begin](#).
 2. Align the holes on the hinges with the holes on the display cover and replace the two screws (one on each side) that secure the display hinges to the display cover.
 3. Replace the display panel (see [Replacing the Display Panel](#)).
 4. Replace the display assembly (see [Replacing the Display Assembly](#)).
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ExpressCard Board

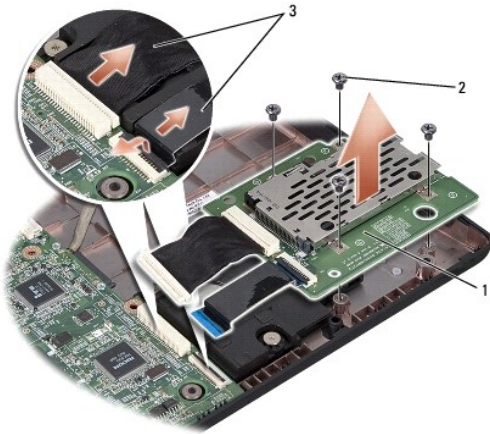
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- [Removing the ExpressCard Board](#)
- [Replacing the ExpressCard Board](#)

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- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the ExpressCard Board

1. Follow the procedures in [Before You Begin](#).
2. Remove the palm rest (see [Removing the Palm Rest](#)).
3. Disconnect the ExpressCard cables from the connectors on the system board.
4. Remove the four screws securing the ExpressCard board to the computer base cover and remove the board.



1	ExpressCard board	2	screws (4)
3	ExpressCard cables		

Replacing the ExpressCard Board

1. Connect the ExpressCard board cables to the system board connectors.
 2. Place the ExpressCard board in position and replace the four screws to secure the board.
- ⚠ CAUTION:** Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.
3. Replace the palm rest (see [Replacing the Palm Rest](#)).

Fan

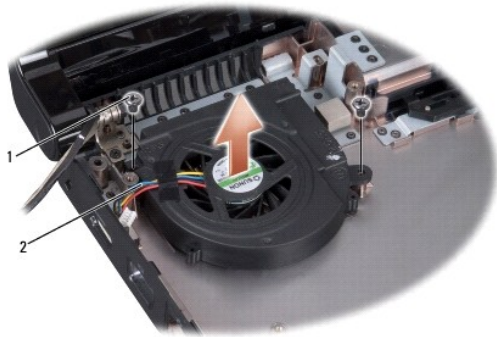
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- [Removing the Fan](#)
- [Replacing the Fan](#)

- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Fan

1. Follow the instructions in [Before You Begin](#).
2. Remove the optical drive (see [Removing the Optical Drive](#)).
3. Disconnect the AC adapter connector cable, USB cable, fan cable, and the subwoofer cable from the system board.
4. Remove the six screws that secure the system board to the computer base.
5. Lift the system board off the computer base.
6. Remove the two screws that secure the fan to the computer base.
7. Lift the fan off the computer base.



1	screws (2)	2	fan cable
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Replacing the Fan

1. Place the fan on the computer base and replace the two screws that secure the fan to the computer base.
2. Place the system board on computer base.
3. Replace the six screws that secure the system board to the computer base.
4. Connect the AC adapter connector cable, USB cable, fan cable, and the subwoofer cable to their respective connectors on the system board.

5. Replace the optical drive (see [Replacing the Optical Drive](#)).

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Hard Drive

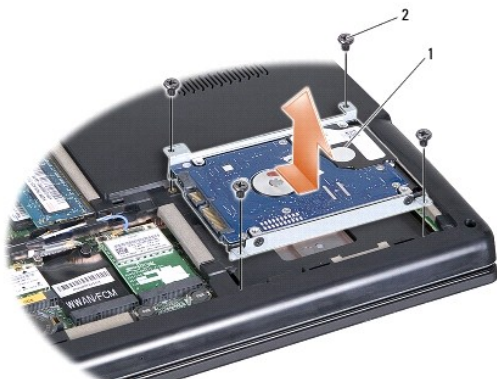
Dell Studio™ 1555 Service Manual

- [Removing the Hard Drive](#)
- [Replacing the Hard Drive](#)

- WARNING:** If you remove the hard drive from the computer when the drive is hot, do not touch the metal housing of the hard drive.
- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- CAUTION:** To prevent data loss, turn off your computer (see [Before Working Inside Your Computer](#)) before removing the hard drive. Do not remove the hard drive while the computer is on or in the Sleep state.
- CAUTION:** Hard drives are extremely fragile. Exercise care when handling the hard drive.
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
- NOTE:** Dell does not guarantee compatibility or provide support for hard drives obtained from sources other than Dell.
- NOTE:** If you are installing a hard drive from a source other than Dell, you need to install an operating system, drivers, and utilities on the new hard drive (see the *Dell Technology Guide*).

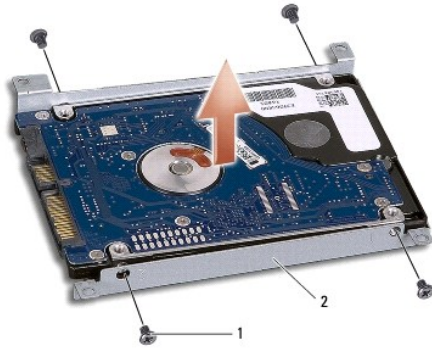
Removing the Hard Drive

1. Follow the procedures in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).
3. Remove the four screws securing the hard drive assembly to the computer base.
4. Slide the hard drive assembly to the side to disconnect it from the hard drive connector and lift it out of the computer base.



1	hard drive assembly	2	screws (4)
---	---------------------	---	------------

5. Remove the four screws securing the hard drive bracket to the hard drive.
6. Separate the hard drive bracket off the hard drive.



1	screws (4)	2	hard drive bracket
---	------------	---	--------------------

CAUTION: When the hard drive is not in the computer, store it in protective antistatic packaging. For more information, see "Protecting Against Electrostatic Discharge" in the safety information that shipped with your computer.

Replacing the Hard Drive

1. Follow the instructions in [Before You Begin](#).
2. Replace the hard drive bracket and tighten the four screws to secure the bracket to the hard drive.
3. Place the hard drive assembly in the computer base.
4. Slide in the hard drive assembly to make contact with the hard drive connector.
5. Replace the four screws that secure the hard drive assembly to the computer base.
6. Replace the base cover (see [Replacing the Base Cover](#)).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

CAUTION: Do not follow the operating system installation process if the hard drive is a Factory-Imaged Hard Drive (FIHD). The operating system is already installed in the FIHD.

7. Install the operating system for your computer, as needed (see the *Dell Technology Guide*).
8. Install the drivers and utilities for your computer, as needed (see the *Dell Technology Guide*).

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Keyboard

Dell Studio™ 1555 Service Manual

- [Removing the Keyboard](#)
- [Replacing the Keyboard](#)

- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.

Removing the Keyboard

1. Follow the procedures in [Before You Begin](#).
 2. Remove the center control cover (see [Removing the Center Control Cover](#)).
 3. Remove the two screws at the top of the keyboard.
- CAUTION:** The key caps on the keyboard are fragile, easily dislodged, and time-consuming to replace. Be careful when removing and handling the keyboard.
4. Lift the keyboard and hold it to access the keyboard connector.
 5. Disconnect the keyboard cable from the keyboard connector on the system board by rotating the keyboard connector latch towards the front of the computer.
 6. Slide the keyboard cable out of the keyboard connector.
- NOTE:** If you have the backlit keyboard (optional), there would be an additional cable that needs to be disconnected.



1	screws (2)	2	keyboard tabs
3	securing tab	4	keyboard cable

Replacing the Keyboard

1. Follow the procedures in [Before You Begin](#).

2. Slide the keyboard cable into the keyboard connector.
3. Rotate the keyboard connector latch to secure the cable.
4. Align the tabs along the bottom of the keyboard and slide them into the slots of the palm rest.
5. Press on the corner edges near the top to snap the keyboard into place.
6. Replace the two screws on top of the keyboard.
7. Replace the center control cover (see [Replacing the Center Control Cover](#)).

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Battery Latch Assembly

Dell Studio™ 1555 Service Manual

- [Removing the Battery Latch Assembly](#)
- [Replacing the Battery Latch Assembly](#)

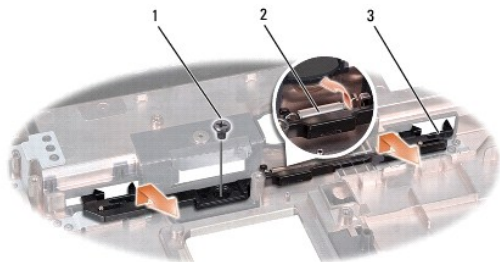
- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
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- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.

Removing the Battery Latch Assembly

1. Follow the instructions in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).
3. Remove all memory modules (see [Removing the Memory Module\(s\)](#)).
4. Remove the hard drive (see [Removing the Hard Drive](#)).
5. Remove Mini-Card (see [Removing the Mini-Card](#)).
6. Remove the center control cover (see [Removing the Center Control Cover](#)).
7. Remove the keyboard (see [Removing the Keyboard](#)).
8. Remove the palm rest (see [Removing the Palm Rest](#)).
9. Remove the optical drive (see [Removing the Optical Drive](#)).
10. Remove the system board (see [Removing the System Board Assembly](#)).
11. Remove the latch spring from the hook that holds it in place.


- CAUTION:** Before you remove the battery release latch, observe the orientation of the latch to ensure proper installation when the latch is replaced.

12. Remove the screw that secures the battery latch to the battery release latch and take the latch out from the computer base.



1	screw	2	latch spring
3	battery latch assembly		

Replacing the Battery Latch Assembly

 **CAUTION:** Ensure the battery latch assembly is properly oriented. The indent for the screw should face up when installing the assembly.

1. Slide the battery latch assembly into place.
2. Replace and tighten the screw securing the battery latch to the battery release latch.
3. Using a small screwdriver, place the spring over the hook on the computer base.
4. Follow the steps in [Removing the Battery Latch Assembly](#) in the reverse order.

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Memory

Dell Studio™ 1555 Service Manual

- [Removing the Memory Module\(s\)](#)
- [Replacing the Memory Module\(s\)](#)

- WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.

You can increase your computer memory by installing memory modules on the system board. See "Specifications" in your *Setup Guide* for information on the memory supported by your computer. Install only memory modules that are intended for your computer.

NOTE: Memory modules purchased from Dell™ are covered under your computer warranty.

Your computer has two user-accessible SODIMM sockets, DIMM A and DIMM B, accessed from the bottom of the computer.

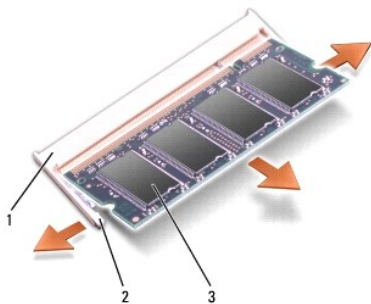
- CAUTION:** If you need to install memory modules in two connectors, install a memory module in the connector labeled "DIMM A" before you install a module in the connector labeled "DIMM B."

Removing the Memory Module(s)

1. Follow the procedures in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).

- CAUTION:** To prevent damage to the memory module connector, do not use tools to spread the memory module securing clips.

3. Use your fingertips to carefully spread apart the securing clips on each end of the memory module connector until the module pops up.
4. Remove the module from the connector.




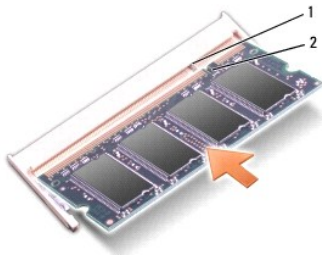
1	memory module connector	2	securing clips (2)
3	memory module		

Replacing the Memory Module(s)


1. Align the notch in the module edge connector with the tab in the connector slot.
2. Slide the module firmly into the slot at a 45-degree angle, and press the module down until it clicks into place. If you do not hear the click, remove the

module and reinstall it.

 **NOTE:** If the memory module is not installed properly, the computer may not boot.




1	tab	2	notch
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 **CAUTION:** If the base cover is difficult to close, remove the module and reinstall it. Forcing the base cover to close may damage your computer.

3. Replace the base cover (see [Replacing the Base Cover](#)).
4. Slide the battery into the battery bay until it clicks into place, or connect the AC adapter to your computer and an electrical outlet.
5. Turn on the computer.

As the computer boots, it detects the additional memory and automatically updates the system configuration information.

To confirm the amount of memory installed in the computer, click **Start**  → **Help and Support** → **Dell System Information**.

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Communication Cards

Dell Studio™ 1555 Service Manual

- [Subscriber Identity Module](#)
- [Wireless Mini-Cards](#)

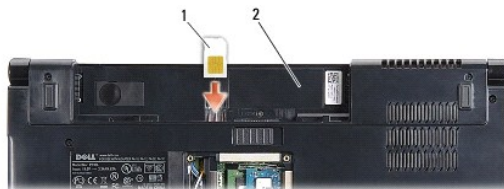
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- CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Subscriber Identity Module

Subscriber Identity Modules (SIM) identify users uniquely through an International Mobile Subscriber Identity.

Installing the SIM

1. Follow the instructions in [Before You Begin](#).
2. In the battery bay, slide the SIM into the compartment.



1	SIM	2	battery bay
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Removing the SIM

Press the SIM into the slot to release it. When it is partially ejected, remove the SIM from the battery bay.

Wireless Mini-Cards

NOTE: Dell does not guarantee compatibility or provide support for Mini-Cards from sources other than Dell.

Your computer supports three Mini-Card slots:


- 1 Two full Mini-Card slots – for WWAN, WPAN, UWB, Bluetooth®
- 1 One half Mini-Card slot – for WLAN


NOTE: Depending on the configuration of your system, one or more of the Mini-Cards might not be present.

The types of Mini-Cards supported are:

- 1 Wireless Local Area Network (WLAN) — Half Mini-Card
- 1 Ultra Wide Band (UWB) — Full Mini-Card
- 1 Mobile broadband or Wireless Wide Area Network (WWAN) — Full Mini-Card


- 1 Wireless Personal Area Network (WPAN) or Internal Card with Bluetooth Wireless Technology — Full Mini-Card

 **NOTE:** Your computer can only support two Full Mini-Cards and one Half Mini-Card at a time.

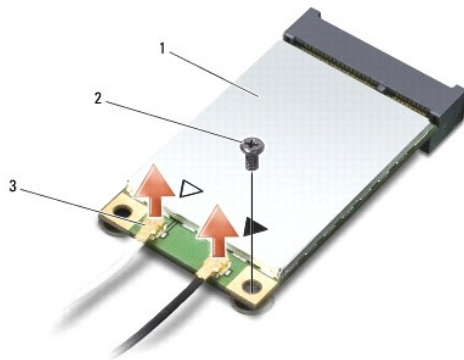
 **NOTE:** The WLAN slot supports a half Mini-Card.

Removing the Mini-Card


1. Follow the instructions in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).

 **CAUTION:** When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

3. Disconnect the antenna cables from the Mini-Card.




1	WWAN/WLAN Mini-Card	2	securing screw	3	antenna cable connectors (2)
---	---------------------	---	----------------	---	------------------------------


 **NOTE:** If you are removing a WPAN/UWB Mini-Card, disconnect the blue antenna cable from the Mini-Card.

4. Remove the screw that secures the Mini-Card to the system board.
5. Lift the Mini-Card out of the system board connector.




 **CAUTION:** When the Mini-Card is not in the computer, store it in protective antistatic packaging. For more information, see "Protecting Against Electrostatic Discharge" in the safety information that shipped with your computer.

Replacing the Mini-Card

 **CAUTION:** Install the UWB Mini-Card in the WWAN or WPAN slot. Do not install a UWB Mini-Card in the WLAN card slot. Doing so may cause damage to your computer.


1. Follow the instructions in [Before You Begin](#).
2. Remove the new Mini-Card from its packaging.

 **CAUTION:** Use firm and even pressure to slide the card into place. If you use excessive force, you may damage the connector.

3. Insert the Mini-Card connector at a 45-degree angle into the appropriate system board connector. For example, the WLAN card connector is labeled **WLAN** and so on.
4. Press the other end of the Mini-Card down into the slot.
5. Replace the screw that secures the Mini-Card to the system board.
6. Connect the appropriate antenna cables to the Mini-Card you are installing. The following table provides the antenna cable color scheme for each Mini-Card supported by your computer.

Connectors on the Mini-Card	Antenna Cable Color Scheme
WWAN (2 antenna cables)	
Main WWAN (white triangle)	white with gray stripe
Auxiliary WWAN (black triangle)	black with gray stripe
WLAN (2 or 3 antenna cables)	
Main WLAN (white triangle)	white
Auxiliary WLAN (black triangle)	black
MIMO WLAN (*gray triangle)	gray
WPAN (one antenna cable)	
WPAN	blue

* The MIMO **WLAN** is optional and may not be available in all computers.

 **NOTE:** The gray antenna cable may not be available in all computers. The presence of the gray antenna cable in your Mini-Card compartment depends upon the type of display.

7. Secure the unused antenna cables in the protective mylar sleeve.
8. Replace the base cover (see [Replacing the Base Cover](#)).
9. Slide the battery into the bay until it clicks into place.
10. Install the drivers and utilities for your computer, as required. For more information, see the *Dell Technology Guide*.

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Optical Drive

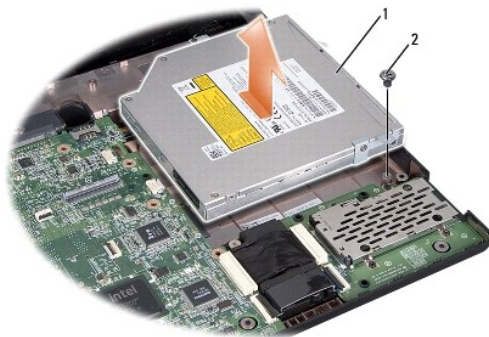
Dell Studio™ 1555 Service Manual

- [Removing the Optical Drive](#)
- [Replacing the Optical Drive](#)

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- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Optical Drive

1. Follow the procedures in [Before You Begin](#).
2. Remove the palm rest (see [Removing the Palm Rest](#)).
3. Remove the screw on the optical drive.
4. Slide the optical drive to the side and lift the optical drive from the computer base.



1	optical drive	2	screw
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Replacing the Optical Drive

1. Place the optical drive in the computer base.
 2. Slide in the optical drive to make contact with the optical drive connector on the mother board.
 3. Replace the screw that secures the optical drive to the computer base.
 4. Replace the palm rest (see [Replacing the Palm Rest](#)).
-

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Palm Rest

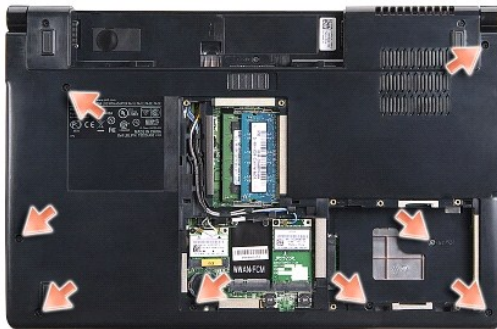
Dell Studio™ 1555 Service Manual

- [Removing the Palm Rest](#)
- [Replacing the Palm Rest](#)

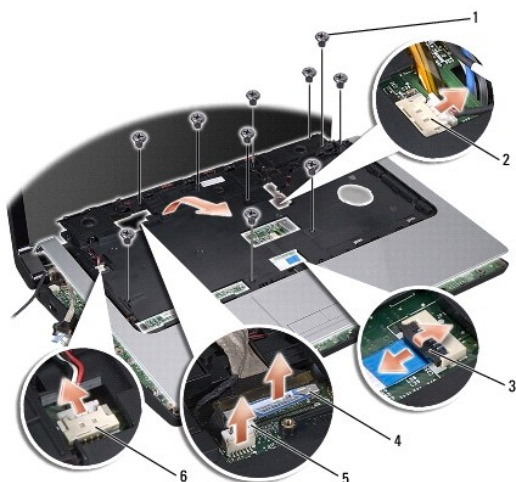
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- CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Palm Rest

1. Follow the instructions in [Before You Begin](#).
2. Remove the base cover (see [Removing the Base Cover](#)).
3. Remove the eight screws from the bottom of the computer.



4. Remove all the Mini-Cards (see [Removing the Mini-Card](#)).
 5. Remove the antenna cables from their cable routing.
 6. Disconnect the display cable, camera cable, and the power button cable from the respective system board connectors (see [Removing the Display Assembly](#)).
 7. Disconnect the touch pad cable and speaker cable from the respective system board connectors.
 8. Remove the ten screws on the palm rest.
- CAUTION:** Do not use force to separate the palm rest from the computer. If you encounter resistance, gently flex or apply pressure to the palm rest, or move along the edge, working away from the area of resistance, until the palm rest is free.



1	screws (10)	2	power button connector
3	touch pad connector	4	display cable connector
5	camera cable connector	6	speaker connector

9. Carefully lift the palm rest along the rear edge, near the hinge brackets, then gently lift the palm rest to remove it from the computer.

Replacing the Palm Rest

1. Align the palm rest with the base of the computer and gently snap it into place.
2. Replace the ten screws on the palm rest.
3. Connect the touch pad cable and speaker cable to the respective system board connectors.
4. Connect the display cable, camera cable, and power button cable to the respective system board connectors (see [Replacing the Display Assembly](#)).
5. Slide the antenna cables through their cable routing (see [Replacing the Display Assembly](#)).
6. Replace the Mini-Cards (see [Replacing the Mini-Card](#)).
7. Replace the eight screws at the bottom of the computer.
8. Replace the base cover (see [Replacing the Base Cover](#)).

Power Button Board

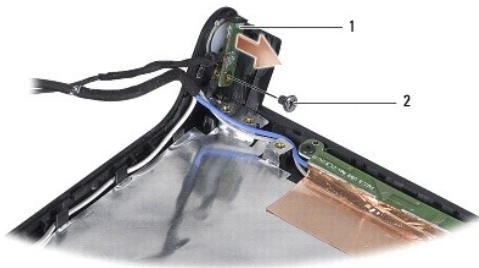
Dell Studio™ 1555 Service Manual

- [Removing the Power Button Board](#)
- [Replacing the Power Button Board](#)

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- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Power Button Board

1. Follow the instructions in [Before You Begin](#).
2. Remove the display hinges (see [Removing the Display Hinges](#)).



1	power button board	2	screw
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3. Remove the screw that secures the power button board to the display cover.
 4. Lift the power button board off the display cover.
-

Replacing the Power Button Board

1. Align the screw hole on the power button board with the screw hole on the display cover and replace the screw.
 2. Replace the display hinges (see [Replacing the Display Hinges](#)).
 3. Slide the battery into the battery bay, until it clicks in place.
-

AC Adapter Connector

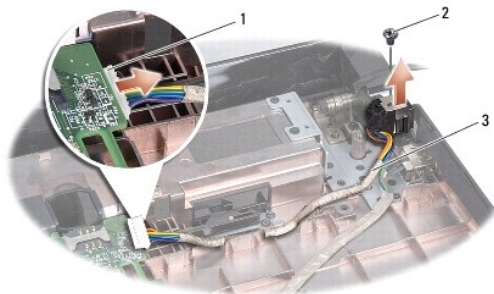
Dell Studio™ 1555 Service Manual

- [Removing the AC Adapter Connector](#)
- [Replacing the AC Adapter Connector](#)

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-

Removing the AC Adapter Connector

1. Follow the procedures in [Before You Begin](#).
2. Remove the optical drive (see [Removing the Optical Drive](#)).
3. Remove the screw that secures the AC adapter connector.
4. Remove the AC adapter cable from the routing guide.
5. Disconnect the AC adapter cable from the system board connector.
6. Lift the connector and cable out of the computer base.



1	AC adapter cable connector	2	screw
3	cable routing		

Replacing the AC Adapter Connector

1. Place the AC adapter connector in the computer base.
 2. Replace the screw that secures the AC adapter connector.
 3. Route the AC adapter cable through the routing guide.
 4. Connect the AC adapter cable to the system board connector.
- ⚠ CAUTION:** Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

5. Replace the optical drive (see [Replacing the Optical Drive](#)).

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Speaker Assembly

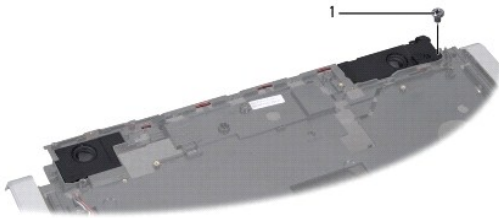
Dell Studio™ 1555 Service Manual

- [Removing the Speaker Assembly](#)
- [Replacing the Speaker Assembly](#)

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-

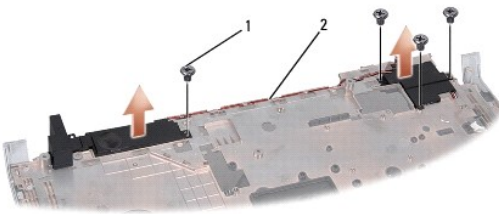
Removing the Speaker Assembly

1. Follow the instructions in [Before You Begin](#).
2. Remove the palm rest (see [Removing the Palm Rest](#)).
3. Remove the screw on the palm rest.



1	screw
---	-------

4. Turn the palm rest over.
5. Remove the four screws on the speakers.
6. Release the speaker cable from the securing tabs on the palm rest and take out the speaker assembly.



1	screws (4)	2	speaker cable
---	------------	---	---------------

Replacing the Speaker Assembly

1. Replace the four screws securing the speaker assembly to the palm rest.

2. Route the speaker cables carefully through the securing tabs on the palm rest.
3. Turn the palm rest over.
4. Replace the screw on the palm rest.
5. Replace the palm rest (see [Replacing the Palm Rest](#)).

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Subwoofer Assembly

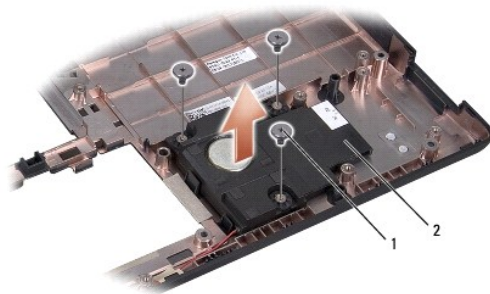
Dell Studio™ 1555 Service Manual

- [Removing the Subwoofer Assembly](#)
- [Replacing the Subwoofer Assembly](#)

- ⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/regulatory_compliance.
- ⚠ CAUTION:** To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as a connector on the back of the computer).
- ⚠ CAUTION:** Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- ⚠ CAUTION:** To help prevent damage to the system board, remove the main battery (see [Before Working Inside Your Computer](#)) before working inside the computer.
-

Removing the Subwoofer Assembly

1. Follow the instructions in [Before You Begin](#).
2. Remove the optical drive (see [Removing the Optical Drive](#)).
3. Disconnect the AC adapter connector cable, USB cable, fan cable, and the subwoofer cable from the system board.
4. Remove the six screws that secure the system board to the computer base.
5. Lift the system board off the computer base.
6. Release the subwoofer cable from the routing guides.
7. Remove the three screws on the subwoofer.
8. Lift the subwoofer assembly from the computer base.



1	screws (3)	2	subwoofer
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Replacing the Subwoofer Assembly

1. Place the subwoofer on the computer base and replace the three screws securing the subwoofer to the computer base.
2. Replace the subwoofer cable back to the routing guides.
3. Replace the system board on the computer base.

4. Replace the six screws that secure the system board to the computer base.
5. Connect the AC adapter connector cable, USB cable, fan cable, and the subwoofer cable to their respective connectors on the system board.
6. Replace the optical drive (see [Replacing the Optical Drive](#)).

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System Board Assembly

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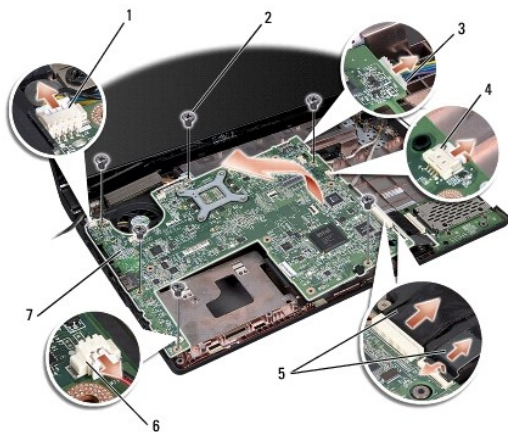
- [Removing the System Board Assembly](#)
- [Replacing the System Board Assembly](#)

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The BIOS chip in the system board contains the Service Tag, which is also visible on a barcode label on the bottom of the computer. The replacement kit for the system board includes media that provides a utility for transferring the Service Tag to the replacement system board.

Removing the System Board Assembly

1. Follow the instructions in [Before You Begin](#).
2. Remove the palm rest (see [Removing the Palm Rest](#)).
3. Remove the optical drive (see [Removing the Optical Drive](#)).
4. Disconnect the fan cable, AC adapter cable, USB cable, ExpressCard cables, and subwoofer cable from the respective system board connectors.
5. Remove the six screws that secure the system board to the computer base.




1	fan cable connector	2	screws (6)
3	AC adapter cable connector	4	USB cable connector
5	ExpressCard cables	6	subwoofer cable connector
7	system board		


6. Remove the processor heat sink (see [Removing the Processor Heat Sink](#)).
7. Remove the processor (see [Removing the Processor Module](#)).
8. Remove the processor bracket from the system board.

9. Remove the Mini-Card from the system board (see [Removing the Mini-Card](#)).

10. Remove the system board.

 **NOTE:** Depending on your system configuration, the number of screws shown here may be greater than the number of screws present on your computer.

Replacing the System Board Assembly

 **CAUTION:** Ensure that any loose cables do not get caught beneath the system board.

Follow the steps in [Removing the System Board Assembly](#) in reverse order.

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NOTE: A NOTE indicates important information that helps you make better use of your computer.



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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USB Connector

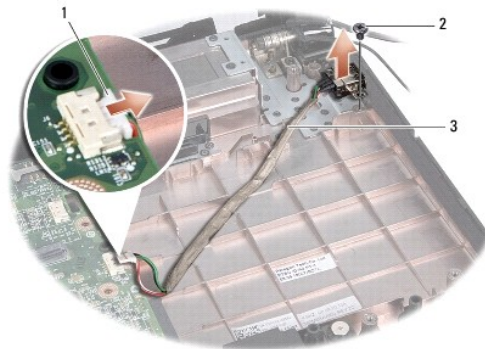
Dell Studio™ 1555 Service Manual

- [Removing the USB Connector Cable](#)
- [Replacing the USB Connector Cable](#)

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Removing the USB Connector Cable


1. Follow the procedures in [Before You Begin](#).
2. Remove the optical drive (see [Removing the Optical Drive](#)).
3. Remove the AC adapter connector (see [Removing the AC Adapter Connector](#)).
4. Remove the screw that secures the USB connector.
5. Remove the USB connector cable from the routing guide.
6. Disconnect the USB connector cable from the system board connector.
7. Lift the connector and cable out of the computer base.



1	USB cable connector	2	screw
3	USB connector cable routing		

Replacing the USB Connector Cable

1. Place the USB connector cable in the computer base.
2. Replace the screw that secures the USB connector.
3. Route the USB connector cable through the routing guide.
4. Connect the USB connector cable to the system board connector.

 **CAUTION:** Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

5. Replace the AC adapter connector (see [Replacing the AC Adapter Connector](#)).
6. Replace the optical drive (see [Replacing the Optical Drive](#)).

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